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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------------|------------------|
| 10/692,053 | 10/23/2003 | Novica Savic | 100727-59 / Heraeus 411-K | 7280 |
| 27384 | 7590 | 12/14/2005 | EXAMINER | |
| NORRIS, MCLAUGHLIN & MARCUS, PA 875 THIRD AVENUE 18TH FLOOR NEW YORK, NY 10022 | | | LEWIS, RALPH A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3732 | |

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/692,053 | SAVIC ET AL. | |
| | Examiner | Art Unit | |
| | Ralph A. Lewis | 3732 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/23/03, 03/25/04</u> . | 6) <input type="checkbox"/> Other: ____. |

Objections to the Specification

The specification is objected to under 37 CFR 1.77(c) for lacking the section heading headings.

Objection to the Drawings

The drawings are objected to under 37 CFR 1.84 (i), (m) and (p) as being informal. The lines, numbers and letters lack uniformity and are fuzzy lacking sharp definition. Solid black shading is not permitted. No new matter should be entered.

Replacement drawings are required. The objection to the drawings will not be held in abeyance.

Rejections based on 35 U.S.C. 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 2-11 applicant appears to be claiming the initial ingredients mixed together to form the fluorescent material layer rather than the composition of composite material formed by the ingredients. It seems unlikely that the layer once cured has the composition claimed. More particularly, in the final product the monomer, the cross-

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linking agent and the initiator would have all reacted with one another such that there is no longer any (or little) monomer, crosslinking agent or initiator left. Applicant is claiming a final product – “a dental molding” comprised of three distinct layers connected together, not a kit for making the final product or some intermediate product. Applicant's attention is directed to *Exxon Chemical Patents Inc. v. Lubrizol Corp.*, (CAFC 1995) 35 USPQ2d 1801 for guidance on the issue.

In claims 3 and 4, it is unclear how the further claimed elements relate to those previously set forth in parent claim 2. More particularly, are these the previously claimed “additive” or are they additional ingredients? If additional ingredients, the examiner suggests language such as “further comprises” and if part of the additive it should be clearly stated.

In claim 11, line 1, there is no antecedent basis for “the fillers.”

Rejections based on Prior Art

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Pyungton (US 2,895,050).

Note particularly column 3, lines 12-24 which teach the use of fluorescent material in the intermediate layers of an artificial tooth.

Claims 1 and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Panzera et al (US 5,653,791).

Note the teaching of an intermediate layer that may have a fluorescing agent (column 5, line 45) in an artificial tooth having layers.

Claims 1 and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Deguchi et al (US 6,063,830).

Deguchi et al disclose in Figures 1 and 2 a dental prosthesis having an outer incisal layer 1, a base (or dentin) layer 3 beneath the outer layer 1 and a middle dentin layer 2 between the two layers 1 and 2. At column 10, lines 58-61, Deguchi et al teach that fluorescences may be added to the middle dentin layer 2.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deguchi et al (US 6,063,830).

Deguchi et al disclose that the dentin middle layer 2 be comprised of monomers (b), poly(alkyl (meth) acrylate) (c) and a polymerization initiator (d) (see column 8, lines

53-56). The layer may also include additives which include pigments and fluorescences (column 10, lines 58-61). The monomers (b) may include many of those listed by applicant in dependent claim 5 (see column 8, lines 22-39), the poly(alkyl (meth)acrylate) (c) acts as a cross linking agent (note applicant's claim 6) and the initiator (see peroxides column 8, lines 3-5). While Deguchi et al disclose all the ingredients of claim 2, they fail to explicitly set forth the weight percentages of each ingredient, however, they do give ranges for the outer layer 1 (see column 7, lines 53-58) that fall well within the broad ranges claimed by applicant. Merely selecting amounts that would have fallen within applicant broadly claimed ranges would have been obvious to the ordinarily skilled artisan as a matter of routine, particularly in view of the ranges disclosed by Deguchi et al in the first layer.

In regard to claim 3, Deguchi fails to explicitly disclose a bead polymer. Bead polymers are common in composite dental restorations and the use of such in the Deguchi et al composite would have undoubtedly been obvious, the examiner notes that the claims do not require its presence with the language "up to 40 percent" which includes within its scope 0%.

Prior Art


Applicant's information disclosure statements of October 23, 2003 and March 25, 2004 have been considered and an initialed copy enclosed herewith.

Salck (US 2,377,382) and Temin et al (US 3,991,008) are made of record.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712**. Fax (571) 273-8300. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Kevin Shaver, can be reached at (571) 272-4720.

R.Lewis
December 9, 2005



Ralph A. Lewis
Primary Examiner
AU3732